PHILOSOPHICAL MAGAZINE B, 1993, VOL. 67, NO. 6, 889–896

SUBJECT INDEX

Vol. 67

A indicates papers published in Part A
B indicates papers published in Part B
L indicates papers published in the Letters

	PAGE
Adsorbate, infrared absorption of	239 L
Ageing of AlCuMgAg at high temperatures	465 B
Al, diffusion controlled creep in	173 L
Al alloys, mechanical properties of	225 L
Al in amorphous Ge:H	273 L
$Al_{70}Co_{15}Ni_{15}$, deformation defects in	51 L
AlCoNiTb quasicrystal, orthorhombic forms of	287 L
AlCuCo decagonal phase	25 L
AlCuFe, phason-induced transformations in	43 L
AlCuFe, twins in	67 L
AlCuFe and AlMn quasicrystals	307 L
AlCuFe crystals and quasicrystals	513 B
AlCuMgAg, high temperature ageing of	465 B
AlCuRu, icosahedral phase in	351 L
AlFeNi, Hume-Rothery stabilization in	69 B
AlLi, annealing of	187 L
AlLi, formation of $L1_2$ precipitates of	99 A
AlLiCu quasicrystals, dislocations in	991 A
Al_3Mn, quasicrystalline nature of	193 B
AlMn and AlCuFe quasicrystals	307 L
AlPdMn, atomic arrangement in	117 L
AlPdMn, edge dislocations in	789 A
AlPdMn, interface structure in	159 L
AlPdMn quasicrystals, epitaxy in	35 L
AlPdMn quasicrystals, precipitates in	9 L
Al_3Ti with $L1_2$ structure	491 A
Aluminium, plasmon energy of	181 B
Aluminium lines, void nucleation in	391 A
Amorphous molybdenum sulphides	215 B
Amorphous Si, crystallization of	51 A
Amorphous Si:H, photoconductivity in	751, 763 B
Amorphous Si:H, recombination in	231 L
Amorphous SiN, photocurrents in	801 B
Amorphous solids, fatigue cracks in	1219 A
Amplitude dependent internal friction	87 A
Anderson localization in tungsten bronzes	317 B
Anisotropic materials, energy loss in	261 A
Anisotropic materials, twin nucleation in	187 A
Anomalous flow in Ni_3Al	675 A
Anthracene, low-temperature slip in	1379 A
Antiphase boundaries in CuZn	813 A
Antiphase-boundary tubes, contrast of	417 B
Approximant and Frank–Kasper phases	569 B
As precipitate coarsening in GaAs	1495 A
Atomic forces in crystals, range of	363 B

	PAGE
Atomic rearrangements of supported Bi	1069 A
Atomic transport in a binary system	757 A
Au irradiation of high T_c superconductors	125 L
Bi particles, atomic rearrangements of	1069 A
Binary system, atomic transport in	757 A
Bipolaron model for high T_c superconductors	833 B
Brittle spheres, fracture of	1389, 1405 A
Buckminsterfullerenes, charge transfer in	77 L
C_{60}, lattice defects and distortion in	101 L
C_{60}, lattice strain in	379 L
C_{60} and C_{70}, structural defects in	443 B
Cascade damage irradiation, dislocations in	1247 A
CdHgTe, vacancy defects in	213 L
CdS, photoplasticity in	219 L
CdTe/GaAs interface, microstructure of	279 L
Cells in random networks	263 B
Charge transfer in Buckminsterfullerenes	77 L
Chromium oxide, electron diffraction of	849 A
Co, h.c.p. to f.c.c. transformation	1289 A
Coercive field in CoFeSiB	399 L
CoFeSiB, amorphous, coercive field in	399 L
Coherency loss microstructure in CdTe/GeAs	279 L
Collision cascades in metals, radiation induced	407 A
Continuous and discontinuous precipitation	1143 A
Corundum, self-trapped hole motion in	557 B
Cracks in ice, electromagnetic emission from	289, 301 B
Creep, diffusion controlled, in Al	173 L
Creep and growth in Zr	917 A
Critical current in YBaCuO	587 B
Crystal fields in (La, Y)OBr:Eu	541 B
Crystalline surface layers on quasicrystal	237 B
Crystallization of a-Se under pressure	705 B
Crystals, range of atomic forces in	363 B
$CsAg_4Br_{3-x}I_{2+x}$, electron beam writing in	19 L
CsI:Tl luminescence, decay kinetics of	627 B
Cu and Hg oxides, internal reduction of	1471 A
Cu in irradiated ferritic pressure vessel steels	131 L
Cu_3Au, lattice dynamics of	369 L
CuBeCo, EELS chemical analysis of	1007 A
CuZn, antiphase boundaries in	813 A
CuZn, deformed, strength anomaly in	217 A
Decagonal AlPdMn, structure of	117 L
Decagonal phase of AlCu	25 L
Decagonal phase of quasicrystals	77 B
Defect cascades in $YBa_2Cu_3O_{7-\delta}$	1347 A
Defect models for hexagonal silicon	605 A
Defects in C_{60} and C_{70}	443 B
Defects in Ni and Ni_4Mo	745 A
Deformation defects in $Al_{70}Co_{15}Ni_{15}$	51 L
Deformation microstructure of TiAl	143 L
Deformation patterns in steel	107 L
Deformed TiAl	979 A
Delocalization corrections in NiAl	425 A
Diamond, infrared spectra of type IaB	405 L
Diamond, isotopic studies of	651 B

PAGE

Dielectric constant for semiconductors . . . . . 601 B
Dielectric systems, time-varying . . . . . 659 B
Differential X-ray absorption of TiAl . . . . . 811 B
Diffusion, solid state, correlation in . . . . . 777 A
Diffusion of gas bubbles in solids . . . . . 1 A
Diffusion of H and D in a-Ge . . . . . 691 B
Disclinations in YBaCuO . . . . . 1037 A
Discs, Voronoi tesselations of . . . . . 347 B
Dislocation climb under cascade irradiation . . . . . 1247 A
Dislocation energies in NiAl . . . . . 307 A
Dislocation glide motion in SiGe . . . . . 165 L
Dislocation loop, phase boundary . . . . . 1423 A
Dislocation pipe diffusion . . . . . 369, 381 A
Dislocation structures in ZrO_2 . . . . . 325 A
Dislocations, elastic stresses near . . . . . 109 A
Dislocations, formation and motion of . . . . . 1153 A
Dislocations, image contrast from . . . . . 261 L
Dislocations, image force on in b.c.c. metals . . . . . 231 A
Dislocations in deformed GaP . . . . . 143 A
Dislocations in hexagonal polycrystals . . . . . 883 A
Dislocations in NiAl . . . . . 643 A
Disordered materials, hopping transport in . . . . . 343 L
Displacive–replacive phase transition in NiAl . . . . . 673 B
Dissociated dislocations in deformed Nb_3Al . . . . . 251 A
Dissociation of dislocations in YBaCuO . . . . . 1021 A
DO_{19} phase of TiAl, deformation of . . . . . 1315 A
Domain boundaries in zirconia . . . . . 595 B
Double-diffracted Laue zone lines . . . . . 1095 A
Ductile alloys, Hall–Petch relation in . . . . . 515 A
Ductile ice . . . . . 151 L
DX-centre levels in GaAsPS . . . . . 25, 49 B

Edge dislocations in AlPdMn . . . . . 789 A
EELS chemical analysis of CuBeCo . . . . . 1007 A
Elastic constants in LiMg . . . . . 3 B
Elastic–plastic indentation, stress in . . . . . 371 B
Elastic stresses near dislocations . . . . . 109 A
Elastically anisotropic half spaces . . . . . 1045 A
Electronic specific heat of semiconductors . . . . . 847 B
Energy loss in anisotropic materials . . . . . 261 A
Epilayers of f.c.c. structures, strain in . . . . . 1333 A
Epitaxial crystallites in Ti on NaCl . . . . . 73 A
Epitaxy in AlPdMn quasicrystals . . . . . 35 L

Fatigue cracks in amorphous solids . . . . . 1219 A
f.c.c. metals, shear band formation in . . . . . 73 L
Fe, H-induced defects in . . . . . 1177 A
FeAl, *in situ* straining of . . . . . 479 A
Fe_3Al, ordering in . . . . . 787 B
FeCrNiMoC, characterization of . . . . . 1277 A
Fe_2O_3–Al_2O_3 interface . . . . . 699, 729 A
Ferritic pressure vessel steels, Cu in . . . . . 131 L
Fractal energy of lattice boundaries . . . . . 385 L
Fracture energy of SiN . . . . . 95 L
Frank–Bilby equation for epitaxial layers . . . . . 585 A
Frank–Kasper and approximant phases . . . . . 569 B
Froths, soap, stochasticity in . . . . . 203 L

PAGE

GaAs, precipitate coarsening in . . . . . 1495 A
GaAs and InSb, dislocations in . . . . . 343 A
GaAs on Si, structure of . . . . . 1365 A
GaAs/AlAs superlattices, deformation in . . . . . 89 L
GaAs/GaInAs strained-layer structures . . . . . 433 A
GaAsPS, DX-centre levels in . . . . . 25, 49 B
GaInP, misfit dislocation in . . . . . 59 L
GaP, deformed, dislocations in . . . . . 143 A
Garnet, thermochemistry of . . . . . 207 A
Gas bubbles in solids . . . . . 1 A
GdSi, characterization of . . . . . 485 B
Ge, amorphous, diffusion of H and D in . . . . . 691 B
Ge, indented, dislocations in . . . . . 245 L
Ge:H, amorphous, Al in . . . . . 273 L
GeAsS, amorphous, photostructural changes in . . . . . 225 B
GeSi, strained-layer superlattice in . . . . . 1 L
Glasses, ionic, d.c. conductivity in . . . . . 389 B
Grain boundaries in ice . . . . . 1261 A
Grain boundary ledges near crack tips . . . . . 1433 A
Grain-boundary studies in YBaCuO . . . . . 11 A

Hall–Petch relation in ductile alloys . . . . . 515 A
Harmonic model for solids, local . . . . . 1081 A
h.c.p. to f.c.c. transformation in Co . . . . . 1289 A
Heavy-fermion UPt_3, secondary structure in . . . . . 85 L
Heterostructures, misfit dislocations in . . . . . 323 L
Hexagonal polycrystals, dislocations in . . . . . 883 A
High T_c superconductors, defects in . . . . . 125 L
Hole currents in a-Si:H . . . . . 407 B
Hopping transport in disordered materials . . . . . 343 L
Hume-Rothery stabilization in AlFeNi . . . . . 69 B
Hydrogen-induced defects in Fe . . . . . 1177 A
Hydrogenated amorphous silicon, currents in . . . . . 721 B
Hydrogenated amorphous silicon, K and P in . . . . . 107, 131 B
Hysteresis loops in $KNbO_3$ . . . . . 117 B

Ice, ductile . . . . . 151 L
Ice, grain boundaries in . . . . . 1261 A
Ice, plastic deformation of . . . . . 173 A
Ice cracks, electromagnetic emission from . . . . . 289, 301 B
Icosahedral AlCuFe, twins in . . . . . 67 L
Icosahedral phase in AlCuRu . . . . . 351 L
Image contrast from dislocations . . . . . 261 L
Image force on a dislocation in b.c.c. metals . . . . . 231 A
Images in the real-space multislice method . . . . . 293 L
Impact loading of brittle spheres . . . . . 1389, 1405 A
Indentation modulus of half spaces . . . . . 1045 A
Infrared absorption of the adsorbate . . . . . 239 L
InSb and GaAs, dislocations in . . . . . 343 A
Interfaces, statistics and dynamics of . . . . . 797 A
Intermetallic TiAlMn, interfaces in . . . . . 1161 A
Internal friction, amplitude dependent . . . . . 87 A
Ionic glasses, d.c. conductivity in . . . . . 389 B
Iron-doped Al_3Ti . . . . . 491 A
Iron oxide and oxyhydroxy structures . . . . . 533 A

K and P in hydrogenated amorphous silicon . . . . . 107, 131 B
$KNbO_3$, hysteresis loops in . . . . . 117 B

PAGE

LaOBr:Eu, crystal fields in . . . . . 541 B
Lattice boundaries, energy of . . . . . 385 L
Lattice strain in C_{60} . . . . . 379 L
Laue zone lines, double-diffracted . . . . . 1095 A
Laue zone lines in Si. . . . . 733 B
$L1_2$ compounds, Paidar–Pope–Vitek locks in . . . . . 193 L
$L1_2$ precipitates of AlLi . . . . . 99 A
LiMg, elastic constants in . . . . . 3 B
$LiNbO_3$ and $LiTaO_3$, dislocation shear loops in . . . . . 361 A
Liquid phase, fast and slow motions in . . . . . 145, 153, 161 B
$LiTaO_3$ and $LiNbO_3$, dislocation shear loops in . . . . . 361 A
Local harmonic model for solids . . . . . 1081 A
Luminescence in CsI:Tl, decay kinetics of. . . . . 627 B

MBANP, ultrasonic and dielectric properties of . . . . . 855 B
Mechanical properties of Al alloys . . . . . 225 L
Metal oxide interfaces, modelling of . . . . . 865 A
Metallization, shear-induced . . . . . 207 B
Metals, radiation induced collision cascades in . . . . . 407 A
MgO and Pd interface, deformations at . . . . . 773 B
Misfit dislocation in GaInP . . . . . 59 L
Misfit dislocations in heterostructures . . . . . 323 L
MnAl phases, structure of. . . . . 869 B
Mode III fracture, dislocations near . . . . . 1433 A
Molybdenum sulphides, amorphous . . . . . 215 B
$MoSi_2$, slip and dislocations in . . . . . 313, 331 L
Motion in the liquid phase . . . . . 145, 153, 161 B

Nb_3Al, deformed, dislocations in . . . . . 251 A
Ni, strain induced grain growth in . . . . . 1301 A
Ni and Ni_4Mo, defects in . . . . . 745 A
Ni_3Al, anomalous flow in . . . . . 675 A
NiAl, delocalization corrections in . . . . . 425 A
NiAl, dislocation energies in . . . . . 307 A
NiAl, motion of dislocations in . . . . . 643 A
NiAl, phase transformation in . . . . . 673 B
Ni_3Al, point defects in . . . . . 275, 289 A
Ni_3Al, superdislocation motion in . . . . . 627 A
NiAlFe, strain in . . . . . 663 A
Ni_3Ga, yield stress anomaly in . . . . . 29 A
Ni_3Ge, deformation in . . . . . 1117 A
NiGe, phase boundaries in . . . . . 1129 A
Ni_3Si, yield strength anomaly in . . . . . 179 L
$Ni_3(Si, Ti)$, dislocation structures in . . . . . 447 A
NiZn ferrite, indentation cracking in. . . . . 1187 A
Noble metals, sputtering yield of . . . . . 97 B
Nonlinear properties of MBANP . . . . . 855 B

Octahedral slip in $Ni_3(Si, Ti)$ . . . . . 447 A
Ordering in Fe_3Al . . . . . 787 B
Orthorhombic forms of AlCoNiTb quasicrystals . . . . . 287 L
Oxide and oxyhydroxy structures of iron . . . . . 533 A
Oxides, mixed, internal reduction of . . . . . 1471 A
Oxygen, diffusion of in V . . . . . 557 A
Oxygen dislocation cores in silicon . . . . . 905 A

Paidar–Pope–Vitek locks of $L1_2$ compounds . . . . . 193 L
Partial dislocations in indented Ge . . . . . 245 L

PAGE

Pd and MgO interface, deformations at . . . . . 773 B
Peierls potential, effect of dislocations on . . . . . 1153 A
Peritectoid formation of quasicrystals . . . . . 393 L
Phase boundaries in NbGe . . . . . 1129 A
Phase study of TiAl . . . . . 463 A
Phason-induced transformations in AlCuFe . . . . . 43 L
Photocarriers in amorphous Si:H . . . . . 171 B
Photoplasticity in CdS . . . . . 219 L
Pipe diffusion, dislocation . . . . . 369, 381 A
Plasmon energy of Al . . . . . 181 B
Plastic behaviour of single crystals . . . . . 1459 A
Plastic deformation of glassy polymers . . . . . 931 A
Plastic deformation of ice . . . . . 173 A
Point defects and isotope studies in diamond . . . . . 651 B
Point defects in Ni_3Al . . . . . 275, 289 A
Poly(methyl methacrylate), stress in . . . . . 827 A
Polymers, glassy, deformation of . . . . . 931 A
Precipitation, continuous and discontinuous . . . . . 1143 A
Pseudomorphic strain in f.c.c. structures . . . . . 1333 A
Pseudostable states . . . . . 253 B

Quasicrystalline AlPdMn, interfaces in . . . . . 159 L
Quasicrystalline nature of Al_3Mn . . . . . 193 B
Quasicrystals, crystalline surface layers on . . . . . 237 B
Quasicrystals, decagonal phase of . . . . . 77 B
Quasicrystals, peritectoid formation of . . . . . 393 L
Quasicrystals, twinning of . . . . . 301 L
Quasicrystals of AlLiCu, dislocations in . . . . . 991 A
Quasicrystals of AlPdMn, precipitates in . . . . . 9 L

Radiation-induced transformation in Ti . . . . . 253 L
Random alloys, stacking fault energies of . . . . . 1447 A
Random networks, cells in . . . . . 263 B
$RbAg_4I_5$, electron beam writing in . . . . . 19 L
Reactance of time-varying dielectric systems . . . . . 659 B
Real-space multislice method, images in . . . . . 293 L
Rotation rate field from texture data . . . . . 155 A

Se, amorphous, crystallization under pressure . . . . . 705 B
Self-trapped hole motion in corundum . . . . . 557 B
Semiconductors, dielectric constant for . . . . . 601 B
Semiconductors, electronic specific heat of . . . . . 847 B
Semiconductors, vacancies in . . . . . 897 A
Shear band formation in f.c.c. metals . . . . . 73 L
Shear-induced metallization . . . . . 207 B
Si, high-order Laue zone lines in . . . . . 733 B
Si, structure of GaAs films on . . . . . 1365 A
Si:H, amorphous, currents in . . . . . 721 B
Si:H, amorphous, from helium-diluted silane . . . . . 497 B
Si:H, amorphous, photocarriers in . . . . . 171 B
Si:H, amorphous, photoconductivity in . . . . . 751, 763 B
Si:H, amorphous, recombination in . . . . . 231 L
Si:H, amorphous, transient hole currents in . . . . . 407 B
SiC, electrical transport in. . . . . 331 B
SiC:H, amorphous, B doped, defects in . . . . . 533 B
SiGe, dislocation glide motion in . . . . . 165 L
Silicon, amorphous, crystallization of . . . . . 51 A
Silicon, energy and defect models of . . . . . 605 A

PAGE

Silicon, oxygen dislocation cores in . . . . . 905 A
SiN, amorphous, photocurrents in . . . . . 801 B
SiN, intrinsic fracture energy of . . . . . 95 L
Single crystals, plastic behaviour of . . . . . 1459 A
Slip and dislocations in $MoSi_2$ . . . . . 313, 331 L
Slip in anthracene . . . . . 1379 A
Soap froths, stochasticity in . . . . . 203 L
Soda-lime glass, indentation cracking in . . . . . 1187 A
Solid state diffusion, correlation in . . . . . 777 A
Sputtering yield of noble metals . . . . . 97 B
Stability of a-Si:H . . . . . 497 B
Stacking fault energies of random alloys . . . . . 1447 A
Statics and dynamics of interfaces . . . . . 797 A
Steel, deformation patterns in . . . . . 107 L
Strain in NiAlFe . . . . . 663 A
Strain induced anomalous grain growth in Ni . . . . . 1301 A
Strained layer structures in GaAs/GaInAs . . . . . 433 A
Strained layers, structural aspects of . . . . . 585 A
Strained superlattice in GeSi . . . . . 1 L
Straining of FeAl *in situ* . . . . . 479 A
Strength anomaly in CuZn . . . . . 217 A
Stress in elastic–plastic indentation . . . . . 371 B
Stress in poly(methyl methacrylate) . . . . . 827 A
Superconductors, high T_c, bipolaron model for . . . . . 833 B
Superdislocation motion in Ni_3Al . . . . . 627 A
Superlattices of GaAs/AlAs, deformation of . . . . . 89 L

Texture data, rotation rate field from . . . . . 155 A
Ti, phase transformation in . . . . . 253 L
Ti, twin dislocation structures in . . . . . 361 L
Ti on NaCl, epitaxial crystallites in . . . . . 73 A
TiAl, deformation of . . . . . 143 L, 979 A
TiAl, phase study of . . . . . 463 A
TiAl, plastic deformation of . . . . . 1315 A
TiAl, twinning in . . . . . 127, 497 A
TiAl and $Ni_3(Al, Ti)$, DXA of . . . . . 811 B
TiAlMn, interfaces in . . . . . 1161 A
Tight-binding potential for Cu_3Au . . . . . 369 L
Triangular phase boundary dislocation loop . . . . . 1423 A
Tungsten bronzes, Anderson localization in . . . . . 317 B
Tweed contrast in YBaCuO . . . . . 573 A
Twin dislocation structures in Ti . . . . . 361 L
Twin intersections in TiAl . . . . . 497 A
Twin nucleation in anisotropic materials . . . . . 187 A
Twin propagation in TiAl . . . . . 127 A
Twinning in YBaCuO . . . . . 1055 A
Twinning of quasicrystals . . . . . 301 L

Ultrasonic properties of V_2O_5–GeO_2 . . . . . 823 B
UPt_3, secondary structural phase in . . . . . 85 L

V, diffusion of oxygen in . . . . . 557 A
Vacancies in ZrS_2 . . . . . 277 B
Vacancy defects in CdHgTe . . . . . 213 L
Vacancy self-compensation in semiconductors . . . . . 897 A
Variable range hopping in Li doped YBaCuO . . . . . 137 L
V_2O_5–GeO_2 glass, ultrasonic properties of . . . . . 823 B

PAGE

Void nucleation in aluminium lines . . . . . 391 A
Voronoi tesselations of discs . . . . . 347 B

YAl garnet, thermochemistry of . . . . . 207 A
YBaCuO, critical current in . . . . . 587 B
YBaCuO, defect cascades in . . . . . 1347 A
YBaCuO, disclinations in . . . . . 1037 A
YBaCuO, dissociation of dislocations in . . . . . 1021 A
YBaCuO, grain-boundary studies in . . . . . 11 A
YBaCuO, Li doped, hopping in . . . . . 137 L
YBaCuO, tweed contrast in . . . . . 573 A
YBaCuO, twinning in . . . . . 1055 A
Yield strength anomaly in Ni_3Si . . . . . 179 L
Yield stress anomaly in Ni_3Ga . . . . . 29 A

Zigzag transgranular cracks in Ni_3Ge . . . . . 1117 A
Zr, steady-state creep and growth in . . . . . 917 A
ZrO_2, dislocation structures in . . . . . 325 A
ZrO_2, domain boundaries in . . . . . 595 B
ZrS_2, vacancies in . . . . . 277 B

PHILOSOPHICAL MAGAZINE, B, 1993, VOL. 67, NO. 6, 897–911

INDEX OF AUTHORS (WITH TITLES)

Vol. 67

A indicates papers published in Part A
B indicates papers published in Part B
L indicates papers published in the Letters

PAGE

Abis, S., Mengucci, P., and Riontino, G.: A study of the high-temperature ageing of Al–Cu–Mg–Ag alloy 201 . . . . . 465 B
Ackland, G. J., *see* Gao, F.
Aloupogiannis, P., *see* Travlos, A.
Amelinckx, S., *see* Muto, S.
Ammi, M., *see* Lemaître, J.
Angelo, J. E., Gerberich, W. W., Stobbs, W. M., Bratina, G., Sorba, L., and Franciosi, A.: The coherency loss microstructure at a CdTe/GaAs (001) interface . . 279 L
Aoki, K., *see* Tsai, A. P.
Araki, K., Waseda, A., Kimura, K., and Ino, H.: Structural relaxation of the melt-spun icosahedral phase and a new type of approximant in Al–Cu–Ru alloys . . 351 L
Argon, A. S., *see* Mott, P. H.
Arita, M., Nissen, H.-U., and Schauer, W.: Phase boundaries between A15 and $D8_8$ structures of the Nb–Ge compound system . . . . . 1129 A
Arkhipov, V. I., and Bässler, H.: A model of weak-field quasi-equilibrium hopping transport in disordered materials . . . . . 343 L
Aronson, M. C., *see* Demczyk, B. G.
Aronzon, B. A., Galeczki, G., and Nimitz, G.: The electronic specific heat of narrow-gap semiconductors . . . . . 847 B
Arsova, D., *see* Vateva, E.
Ashenford, D. A., *see* Cherns, D.
Audier, M., *see* Menguy, N.

Babić, E., *see* Sabolek, S.
Backhaus-Ricoult, M., and Hagège, S.: Internal reduction of (Mg, Cu)O . . . 1471 A
Bacon, D. J., *see* Gao, F.
Baczmanski, A., Wierzbanowski, K., Jura, J., Haije, W. G., Helmholdt, R. B., and Maniawski, F.: Calculation of the rotation rate field on the basis of experimental texture data . . . . . 155 A
Baker, I., and Horton, J. A.: *In situ* straining of Fe–Al in a transmission electron microscope. . . . . 479 A
Baker, I., Guha, S., and Horton, J. A.: Transmission electron microscopy *in situ* straining of multiphase Ni–20 at.% Al–30 at.%Fe . . . . . 663 A
Baker, I., *see* Liu, F.
Ballesteros, C., *see* González, R.
Balzuweit, K., Meekes, H., Van Tendeloo, G., and De Boer, J. L.: On the relationship between morphology, composition and structure of Al–Cu–Fe crystals and quasicrystals . . . . . 513 B
Bancel, P. A.: Phason-induced transformations of icosahedral Al–Cu–Fe. . . . 43 L
Bangert, U., *see* Harvey, A. J.
Barbu, A., *see* Dammak, H.
Bartwal, K. S., and Srivastava, O. N.: Short- and long-range ordering of vacancies in ZrS_2 crystals . . . . . 277 B
Bässler, H., *see* Arkhipov, V. I.
Basu, C., *see* Mukherjee, S.

PAGE

Batstone, J. L.: *In situ* crystallization of amorphous silicon in the transmission electron microscope . . . . . 51 A

Baxter, C. S., Stobbs, W. M., and Gibbings, C. J.: Observation of the track of a misfit dislocation in ordered $Ga_{0.5}In_{0.5}P$ . . . . . 59 L

Beale, M.: Anomalous reactance behaviour during the impedance analysis of time-varying dielectric systems . . . . . 659 B

Beanland, R.: Structural aspects of strained layers. I. Application of the Frank–Bilby equation to epitaxial layers . . . . . 585 A

Beauchamp, P., and Dirras, G.: Cluster variation method calculation of antiphase boundaries on {112} plane in a B2 ordered compound application to β-CuZn 813 A

Behrensmeier, R., *see* Kung, J.-F.

Belougne, P., Bensimon, Y., Deroide, B., Giuntini, J. C., and Zanchetta, J. V.: Evidence of microstructural modification in amorphous molybdenum sulphides obtained from d.c. and a.c. conductivities and electron spin resonance measurements . 215 B

Bensimon, Y., *see* Belougne, P.

Bideau, D., *see* Lemaître, J.

Bindemann, R., *see* Vollmar, H.-P.

Biswas, S. K., *see* Ghosal, A. K.

Bordoni, P. G., *see* Youssef, M. H.

Boudard, M., *see* Menguy, N.

Bouizem, Y., *see* Meaudres, R.

Boumerzoug, Z., *see* Hamana, D.

Bourret, A., *see* Parisini, A.

Boutefnouchet, A., *see* Hamana, D.

Bratina, G., *see* Angelo, J. E.

Brodie, D. E., *see* Zhang, S.

Brown, L. M., *see* Browning, N. D.

Browning, N. D., Yuan, J., and Brown, L. M.: Theoretical determination of angularly-integrated energy loss functions for anisotropic materials . . . . . 261 A

Budhani, R. C., *see* Zhu, Y.

Bullot, J., Cordier, P., and Gauthier, M.: Photoconductivity in hydrogenated amorphous silicon. I. Thermal emission and hopping of trapped charges . . 751 B

Bullot, J., Cordier, P., and Gauthier, M.: Photoconductivity in hydrogenated amorphous silicon. II. Relaxation of trapped charge carriers . . . . . 763 B

Bursill, L. A., *see* Kasukabe, Y.

Butt, M. Z., and Zulfiqar, M. N.: Investigation of the activation parameters of low-temperature slip in anthracene single crystals . . . . . 1379 A

Cabaud, B., *see* Treilleux, M.

Cai, Z. X., *se* Zhu, Y.

Cao, B., Ichinose, H., Yamamoto, S., Li, H., and Ishida, Y.: Characterization of hydrogen-induced defects in iron by positron annihilation . . . . . 1177 A

Cao, M. Z., *see* He, L. L.

Caponetti, E., Floriano, M. A., Pipitone, G., and Triolo, R.: Long-time annealing at ambient temperature of a mildly treated commercial Al–Li alloy . . . . 187 L

Cardellini, F., and Mazzone, G.: Thermal and structural study of the h.c.p.-to-f.c.c. transformation in cobalt . . . . . 1289 A

Carter, C. B., *see* Tietz, L. A.

Castell, M. R., Howie, A., Perovic, D. D., Ritchie, D. A., Churchill, A. C., and Jones, G. A. C.: Plastic deformation under microindentations in GaAs/AlAs superlattices . . . . . 89 L

Chambouleyron, I., *see* Graeff, C. F. O.

Chandrasekar, S., and Chaudhri, M. M.: Indentation cracking in soda-lime glass and Ni–Zn ferrite under Knoop and conical indenters and residual stress measurements . . . . . 1187 A

Chang, H. Y., *see* Lee, H. Y.

Chapon, C., *see* Giorgio, S.

Charsley, P., *see* Harvey, A. J.

Chaturvedi, M. C., *see* Zhang, Y. G.

PAGE

Chaudhri, M. M., *see* Chandrasekar, S.
Chaudhri, M. M.: Subsurface deformation patterns around indentations in work-hardened mild steel . . . . . 107 L
Chaudhuri, K., and Das, S.: Deformation microstructures of Ti–52 at.% Al–3 at.%V alloy . . . . . 143 L
Chen, C. Q., *see* Zhang, Y. G.
Chen, I., *see* Mort, J.
Chen, Y., *see* González, R.
Chen, Yi, *see* González, R.
Cherns, D., Chou, C. T., Steeds, J. W., Ashenford, D. A., and Lunn, B.: A multiple cross-slip mechanism for the generation of misfit dislocations in (001) semiconductor heterostructures . . . . . 323 L
Chou, C. T., and Steeds, J. W.: Formation of double-diffracted higher-order Laue zone lines . . . . . 1095 A
Chou, C. T., *see* Cherns, D.
Chu, W. K., *see* Wu, J. Z.
Churchill, A. C., *see* Castell, M. R.
Cleri, F., and Rosato, V.: Lattice dynamics of ordered and disordered Cu_3Au with a tight-binding potential model . . . . . 369 L
Coles, B. R., *see* Demczyk, B. G.
Condat, M., *see* Khalfallah, O.
Cordier, P., *see* Bullot, J.
Coujou, A., *see* Farenc, S.
Couret, A., *see* Farenc, S.
Couret, A., Sun, Y. Q., and Hirsch, P. B.: Glide sequences of deformation in the {111} plane of Ni_3Ga single crystals in the yield stress anomaly. . . . . 29 A
Court, S. A., *see* Evans, D. J.
Crampin, S., Vvedensky, D. D., and Monnier, R.: Stacking fault energies of random metallic alloys . . . . . 1447 A

Dai, M. X., and Urban, K.: Twins in icosahedral Al–Cu–Fe . . . . . 67 L
Dai, M. X.: Edge dislocations in icosahedral Al–Pd–Mn alloys . . . . . 789 A
Dallacasa, V., *see* Feduzi, R.
Dammak, H., Barbu, A., Dunlop, A., Lesueur, D., and Dorelzelli, N.: $\alpha \rightarrow \omega$ phase transformation induced in titanium during ion irradiations in the electronic slowing-down regime . . . . . 253 L
Das, S., *see* Chaudhuri, K.
De Boer, J. L., *see* Balzuweit, K.
De Boissieu, M., *see* Menguy, N.
De Meulenaere, P., Van Tendeloo, G., Van Landuyt, J., Mommaert, C., and Severne, G.: Radiation defects and ordered radiation patterns in Ni and Ni_4Mo. A study by electron microscopy . . . . . 745 A
Demczyk, B. G., Aronson, M. C., Coles, B. R., and Smith, J. L.: Observation of a secondary structural phase in the heavy-fermion superconductor UPt_3 . . 85 L
Demichelis, F., Pirri, C. F., and Tresso, E.: Degree of crystallinity and electrical transport properties of microcrystalline silicon–carbon alloys . . . . . 331 B
Denanot, M. F., *see* Rabier, J.
Deroide, B., *see* Belougne, P.
Desalvo, A., Zignani, F., Galloni, R., Rizzoli, R., and Ruth, M.: Doping of amorphous silicon by potassium ion implantation . . . . . 131 B
Despotuli, A. L., *see* Nikolaichik, V. I.
Dimiduk, D. M., *see* Parthasarathy, T. A.
Dimiduk, D. M., Thompson, A. W., and Williams, J. C.: The compositional dependence of antiphase-boundary energies and the mechanism of anomalous flow in Ni_3Al alloys . . . . . 675 A
Dirras, G., *see* Beauchamp, P.
Domenicucci, A., *see* Nandedkar, A. S.
Donnadieu, P., and Redjaïmia, A.: Approximant and Frank–Kasper phases . . 569 B
Dorelzelli, N., *see* Dammak, H.

PAGE

Duan, X. F., Wang, Y. T., Sheng, C., and Ouyang, J. T.: Kinematical study of Ge_xSi_{1-x}/Si strained-layer superlattice by a double crystal X-ray diffraction method . . . . . 1 L
Dudley, M., *see* Liu, F.
Duffy, D. M., Harding, J. H., and Stoneham, A. M.: Atomistic modelling of metal–oxide interfaces with image interactions . . . . . 865 A
Dunlap, R. A.: Mössbauer effect studies of Hume-Rothery stabilization mechanisms in decagonal Al–Fe–Ni quasicrystals . . . . . 69 B
Dunlop, A., *see* Dammak, H.
Dupare, J. G., *see* Ingle, S. G.
Dutta, P. K., Samanta, S. B., and Narlikar, A. V.: Nanometric lattice defects and distortion in the Buckyball cage in C_{60} films revealed by scanning tunnelling microscopy . . . . . 101 L

Erofeeva, S. A., *see* Kisel, V. P.
Estabil, J. J., *see* Nandedkar, A. S.
Estournes, C., *see* Rao, K. J.
Evans, D. J., Court, S. A., Hazzledine, P. M., and Fraser, H. L.: Dislocation dissociation in the intermetallic compound $MoSi_2$ . . . . . 331 L
Evans, T., *see* Woods, G. S.

Fabeni, P., *see* Nikl, M.
Fan, Z., Tsakiropoulos, P., Smith, P. A., and Miodownik, A. P.: Extension of the Hall–Petch relation to two-ductile-phase alloys . . . . . 515 A
Fang, J., and Schulson, E. M.: Transmission electron microscopy *in situ* deformation study of {111} zigzag transgranular cracks in the $L1_3$ intermetallic compound Ni_3Ge . . . . . 1117 A
Fangqing, Z., *see* Guanghua, C.
Farenc, S., Coujou, A., and Couret, A.: An *in situ* study of twin propagation in TiAl 127 A
Faux, D. A., *see* Harvey, A. J.
Feduzi, R., and Dallacasa, V.: Variable-range hopping behaviour in the Li-doped Y–Ba–Cu–O (1:2:3) system. . . . . 137 L
Feng, Y. C., *see* Zhang, Z.
Ferrari, L., and Russo, G.: Quantum approach to fast and slow motions in the liquid phase. I. Extended phonons in liquids and glasses . . . . . 145 B
Ferrari, L., and Russo, G.: Quantum approach to fast and slow motions in the liquid phase. II. General formalism and dynamics . . . . . 153 B
Ferrari, L., and Russo, G.: Quantum approach to fast and slow motions in the liquid phase. III. Applications to the density correlation function . . . . . 161 B
Fifolt, D. A., Petrenko, V. F., and Schulson, E. M.: Preliminary study of electromagnetic emissions from cracks in ice . . . . . 289 B
Filippov, A. P., and Gaidukov, G. N.: Formation of impurity segregation in the field of elastic stresses near dislocations . . . . . 109 A
Floriano, M. A., *see* Caponetti, E.
Fonseca, F. J., Galloni, R., and Larsen, A. N.: Electrical activation of potassium and phosphorus ions implanted in hydrogenated amorphous silicon . . . . 107 B
Forbes, K. R., *see* Glatzel, U.
Fortes, M. A., and Pina, P.: Average topological properties of successive neighbours of cells in random networks . . . . . 263 B
Fradkov, V. E., Magnasco, M. O., Udler, D., and Weaire, D.: Determinism and stochasticity in ideal two-dimensional soap froths . . . . . 203 L
Franciosi, A., *see* Angelo, J. E.
Fraser, H. L., *see* Evans, D. J.
Freire, Jr, F. L., *see* Graeff, C. F. O.
Frischherz, M. C., Kirk, M. A., Zhang, J. P., and Weber, H. W.: Transmission electron microscopy of defect cascades in $YBa_2Cu_3O_{7-\delta}$ produced by ion irradiation . 1347 A
Fu, C. L., Ye, Y. Y., and Yoo, M. H.: Theoretical investigation of the elastic constants and shear fault energies of Ni_3Si. Application to the yield strength anomaly . 179 L
Fuchizaki, K.: Fractal energy surface structure of coincident-site lattice boundaries 385 L

PAGE

Fuchs, G., *see* Treilleux, M.
Fujita, K., *see* Yamashita, Y.
Fukatsu, S., *see* Yamashita, Y.
Fultz, B., *see* Gao, Z. Q.
Fultz, B.: Pseudo-stable states . . . . . 253 B

Gaidukov, G. N., *see* Filippov, A. P.
Galeczki, G., *see* Aronzon, B. A.
Galligan, J. M., *see* Kung, J.-F.
Galloni, R., *see* Desalvo, A.
Galloni, R., *see* Fonseca, F. J.
Gantois, M., *see* Redjaïmia, A.
Gao, F., and Bacon, D. J. (with appendix by Ackland, G. J.): Point-defect and displacement energies in Ni_3Al. I. Point-defect properties . . . . . 275 A
Gao, F., and Bacon, D. J.: Point-defect and threshold displacement energies in Ni_3Al. II. Events at the displacement threshold . . . . . 289 A
Gao, Z. Q., and Fultz, B.: Transient B32-like order during the early stages of ordering in undercooled Fe_3Al . . . . . 787 B
Gauthier, M., *see* Bullot, J.
Geipel, T., Xiao, S. Q., and Pirouz, P.: HRTEM study of $\frac{1}{6}\langle 411\rangle$ partial dislocations in hot hardness indented Ge . . . . . 245 L
Gerberich, W. W., *see* Angelo, J. E.
Gerthsen, D.: Atomic structure of the interface of GaAs on vicinal Si(001) . . . 1365 A
Gervois, A., *see* Lemaître, J.
Ghosal, A. K., and Biswas, S. K.: Examination of stress fields in elastic–plastic indentation. . . . . 371 B
Ghosh, U. S., *see* Mukherjee, S.
Gibbings, C. J., *see* Baxter, C. S.
Gilman, J. J.: Shear-induced metallization . . . . . 207 B
Gilmour, S., Pethrick, R. A., Pugh, D., and Sherwood, J. N.: Ultrasonic, piezoelectric and dielectric investigations of (-)-2-α-methylbenzylamino-5-nitropyridine. . 855 B
Giorgio, S., Chapon, C., Henry, C. R., and Nihoul, S.: High-resolution transmission electron microscopy studies of structural deformations at the interface between Pd particles and MgO surfaces . . . . . 773 B
Giuntini, J. C., *see* Belougne, P.
Glatzel, U., Forbes, K. R., and Nix, W. D.: Dislocation energies for an anisotropic cubic crystal. Calculations and observations for NiAl . . . . . 307 A
González, R., Ballesteros, C., Liu, Y.-J., Chen, Yi., Zong, X.-F., and Chen, Y.: Thermochemical reduction of yttrium aluminium garnet crystals . . . . 207 A
González-Doncel, G., and Wolfenstine, J.: Pipe-diffusion-controlled creep under constant structure of an aluminium alloy . . . . . 173 L
Graeff, C. F. O., Freire, Jr, F. L., and Chambouleyron, I.: Hydrogen and deuterium incorporation and release processes in r.f.-sputtered hydrogenated or deuterated amorphous germanium films . . . . . 691 B
Groma, I., and Pawley, G. S.: Computer simulation of plastic behaviour of single crystals . . . . . 1459 A
Grushko, B., Wittmann, R., and Urban, K.: Investigation of the Al–Cu–Co decagonal phase with a low copper content . . . . . 25 L
Guanghua, C., Zhizhong, S., Liming, Z., Yongping, G., and Fangqing, Z.: Creation process of thermally induced defects in boron-doped hydrogenated amorphous silicon–carbon films . . . . . 533 B
Gudladt, H.-J., *see* Lendvai, J.
Guha, S., *see* Baker, I.
Guyott, P., *see* Menguy, N.

Hagège, S., *see* Backhaus-Ricoult, M.
Haije, W. G., *see* Baczmanski, A.
Hamana, D., Nebti, S., Boumerzoug, Z., and Boutefnouchet, A.: The similarity between continuous and discontinuous precipitation . . . . . 1143 A

PAGE

Hampikian, J. M., *see* Rossouw, C. J.
Han, D., *see* He, L. L.
Hanada, S., *see* Murayama, Y.
Harding, J. H., *see* Duffy, D. M.
Haridim, M., Weiser, K., and Mell, H.: Use of the steady-state photocarrier-grating technique for the study of the surface recombination velocity of photocarriers and the homogeneity of hydrogenated amorphous silicon films . . . . . 171 B
Harvey, A. J., Faux, D. A., Bangert, U., and Charsley, P.: The determination of the strain in $GaAs/Ga_xIn_{1-x}As$ strained-layer structures from measurements of thickness fringe displacements . . . . . 433 A
Hashimoto, S., *see* Hiraga, K.
Hazzledine, P. M., *see* Evans, D. J.
He, L. L., Ye, H. Q., Ning, X. G., Cao, M. Z., and Han, D.: The study of interfaces between TiAl and Ti_3Al phases in the intermetallic compound $Ti_{50\cdot7}Al_{48}Mn_{1\cdot3}$ 1161 A
Heinisch, H. L., and Singh, B. N.: On the structure of irradiation-induced collision cascades in metals as a function of recoil energy and crystal structure . . 407 A
Helmholdt, R. B., *see* Baczmanski, A.
Henry, C. R., *see* Giorgio, S.
Herzog, G., *see* Limburgh, H.-J.
Heuer, A. H., *see* Holmes, D.
Heuer, A. H., *see* Maloy, S. A.
Higashi, K., *see* Nagahama, H.
Hiraga, K., and Sun, W.: The atomic arrangement of an Al–Pd–Mn decagonal quasicrystal studied by high-resolution electron microscopy . . . . . 117 L
Hiraga, K., Kaneko, M., Matsuo, Y., and Hashimoto, S.: The structure of Al_3Mn: close relationship to decagonal quasicrystals . . . . . 193 B
Hiraga, K., *see* Murayama, Y.
Hiraga, K., *see* Sun, W.
Hirsch, P. B., *see* Couret, A.
Hlinka, J., *see* Nikl, M.
Hoareau, A., *see* Treilleux, M.
Holmes, D., Heuer, A. H., and Pirouz, P.: Dislocation structures around Vickers indents in 9·4 mol%Y_2O_3-stabilized cubic ZrO_2 single crystals . . . . 325 A
Hölså, J., *see* Limburgh, H.-J.
Horita, Z., Kuninaka, H., Sano, T., Nemoto, M., and Spence, J. C. H.: Delocalization corrections using a disordered structure for atom location by channelling-enhanced microanalysis in the Ni–Al system . . . . . 425 A
Horita, Z., *see* Tian, W. H.
Horton, J. A., *see* Baker, I.
Howie, A., *see* Castell, M. R.
Howie, A., *see* Perovic, D. D.
Hubík, P., *see* Zeman, J.
Hug, G., *see* Wardle, S.
Hutchings, I. M., *see* Shipway, P. H.

Ichinose, H., *see* Cao, B.
Ikeda, H., *see* Zhu, Y.
Ingle, S. G., and Dupare, J. G.: Anomalous hysteresis loops in $KNbO_3$ single crystals 117 B
Ino, H., *see* Araki, K.
Inoue, A., *see* Nagahama, H.
Inoue, A., *see* Tsai, A. P.
Inui, H., Toda, Y., and Yamaguchi, M.: Plastic deformation of single crystals of a DO_{19} compound with an off-stoichiometric composition (Ti–36·5 at.%Al) at room temperature . . . . . 1315 A
Ishida, Y., *see* Cao, B.

Jacobs, P. W. M., Kotomin, E. A., Stashans, A., and Tale, I. A.: Mechanism of self-trapped hole motion in corundum crystals . . . . . 557 B

PAGE

Janot, C., *see* Menguy, N.
Jones, G. A. C., *see* Castell, M. R.
Jones, I. P., *see* Ngan, A. H. W.
Jones, R., *see* Umerski, A.
Jumonji, K., Shinohara, T., Kato, M., and Sato, A.: *In situ* observation of superdislocation motion and high-temperature strengthening of Ni_3Al single crystals 627 A
Jura, J., *see* Baczmanski, A.

Kanda, H., *see* Woods, G. S.
Kaneko, M., *see* Hiraga, K.
Kašpárková, M., *see* Macko, D.
Kasukabe, Y., Yamada, Y., and Bursill, L. A.: Epitaxial cubic and hexagonal crystallites in titanium thin films evaporated onto sodium chloride substrates . . . . 73 A
Kasukabe, Y., Yamada, Y., Lin, P. J., and Bursill, L. A.: Characterization of $\{1\bar{1}01\}$ twin dislocation structures in evaporated titanium thin films by high-resolution transmission electron microscopy . . . . . 361 L
Kato, M., *see* Jumonji, K.
Keer, L. M., and Polonsky, I. A.: The displacement field of a triangular phase boundary dislocation loop . . . . . 1423 A
Khalfallah, O., Condat, M., and Priester, L.: Image force on a lattice dislocation due to a grain boundary in b.c.c. metals . . . . . 231 A
Khu, Y., *see* King, A. H.
Kiflawi, I., *see* Woods, G. S.
Kimura, K., *see* Araki, K.
King, A. H., and Khu, Y.: Twin-corner disclinations in $YBa_2Cu_3O_{7-\delta}$ . . . . 1037 A
Kirk, M. A., *see* Frischherz, M. C.
Kisel, V. P., Erofeeva, S. A., and Shikhsaidov, M. Sh.: Dynamics of dislocations in InSb and GaAs crystals . . . . . 343 A
Kléman, M., *see* Staiger, W.
Koizumi, H., *see* Suzuki, T.
Koslowski, Th., and Von Niessen, W.: Anderson localization in tungsten bronzes. A numerical study . . . . . 317 B
Kotomin, E. A., *see* Jacobs, P. W. M.
Krištofik, J., *see* Zeman, J.
Kuehn, G. A., *see* Schulson, E. M.
Kung, J.-F., Behrensmeier, R., and Galligan, J. M.: A two-step decay process in photoplasticity in CdS . . . . . 219 L
Kininaka, H., *see* Horita, Z.
Kuo, K. H., *see* Yu, R. C.
Kuo, K. H., *see* Zhang, Z.

Lakner, H., *see* Wollgarten, M.
Larsen, A. N., *see* Fonseca, F. J.
Lebensohn, R. A., and Tomé, C. N.: A study of the stress state associated with twin nucleation and propagation in anisotropic materials . . . . . 187 A
Lee, H. Y., and Chang, H. Y.: The temperature dependence of the sputtering yield of noble metals . . . . . 97 B
Lee, S., *see* Shiue, S.-T.
Lele, S., *see* Mandal, R. K.
Lemaître, J., Gervois, A., Troadec, J. P., Rivier, N., Ammi, M., Oger, L., and Bideau, D.: Arrangement of cells in Voronoi tesselations of monosize packing of discs . 347 B
Lendvai, J., Wunderlich, W., and Gudladt, H.-J.: Formation of $L1_2$ ordered precipitates at room temperature and their effect on the mechanical properties in Al–Li alloys 99 A
Lesueur, D., *see* Dammak, H.
Levasseur, A., *see* Rao, K. J.
Lewandowski, J. J., *see* Maloy, S. A.
Li, H., *see* Cao, B.
Li, X. Z., *see* Yu, R. C.
Limburgh, H.-J., Hölsä, J., Porcher, P., Herzog, G., Starick, D., and Wulff, H.: Solid solutions and crystal fields in $(LA_{1-x}Y_x)OBr{:}Eu^{3+}$ . . . . . 541 B

PAGE

Liming, Z., *see* Guanghua, C.
Lin, P. J., *see* Kasukabe, Y.
Liu, F., Baker, I., and Dudley, M.: Dynamic observations of dislocation generation at grain boundaries in ice . . . . . 1261 A
Liu, Y.-J., *see* González, R.
Lunn, B., *see* Cherns, D.
Luyten, W., *see* Woods, G. S.

Machonkin, M., *see* Mort, J.
Macko, D., and Kašpárková, M.: Infrared properties of quasicrystalline icosahedral Al–Mn and Al–Cu–Fe phases . . . . . 307 L
Maeda, K., *see* Yamashita, Y.
Magnasco, M. O., *see* Fradkov, V. E.
Mahalingam, K., *see* Melloch, M. R.
Maiti, A., *see* Mukherjee, S.
Maloy, S. A., Mitchell, T. E., Lewandowski, J. J., and Heuer, A. H.: {103}⟨331⟩ slip in $MoSi_2$ . . . . . 313 L
Mandal, R. K., Lele, S., and Ranganathan, S.: Twinning of quasicrystals and related structures . . . . . 301 L
Mangion, M. B. M., *see* Ouali, N.
Maniawski, F., *see* Baczmanski, A.
Mareš, J. J., *see* Zeman, J.
Marohnić, Ž., *see* Sabolek, S.
Masumoto, T., *see* Nagahama, H.
Masumoto, T., *see* Tsai, A. P.
Mathieu, F., and Rousset, A.: Structural analysis of the transformation mechanisms in iron oxides and oxyhydroxides . . . . . 533 A
Matsui, H., *see* Nakajima, H.
Matsumoto, A., and Saka, H.: Strength anomaly in β-CuZn single crystals deformed in direct shear . . . . . 217 A
Matsuo, Y., *see* Hiraga, K.
Mazzone, G., *see* Cardellini, F.
McGibbon, A. J., *see* Walmsley, J. C.
Meaudre, M., *see* Meaudres, R.
Meaudres, R., Meaudre M., Vignoli, S., Roca i Cabarrocas, P., Bouizem, Y., and Theye, M. L.: Stability of hydrogenated amorphous silicon deposited by plasma-enhanced chemical vapour deposition from helium-diluted silane . . . . 497 B
Meekes, H., *see* Balzuweit, K.
Melinon, P., *see* Treilleux, M.
Mell, H., *see* Haridim, M.
Melloch, M. R., Mahalingam, K., Otsuka, N., Woodall, J. M., and Warren, A. C.: Comment on arsenic precipitate coarsening in GaAs epilayers . . . . . 1495 A
Memezawa, A., *see* Tsai, A. P.
Menetrier, M., *see* Rao, K. J.
Mengucci, P., *see* Abis, S.
Menguy, N., Audier, M., De Boissieu, M., Guyott, P., Boudard, M., and Janot, C.: Phason–phonon-assisted epitaxy at icosahedral–decagonal interfaces in Al–Pd–Mn quasicrystals . . . . . 35 L
Mera, Y., *see* Yamashita, Y.
Merk, N., *see* Muto, S.
Metauer, G., *see* Radjaimia, A.
Mihokova, E., *see* Nikl, M.
Miller, P. R., *see* Rossouw, C. J.
Miodownik, A. P., *see* Fan, Z.
Mitchell, T. E., *see* Maloy, S. A.
Miyazawa, K., Suzuki, K., and Sakuma, T.: HREM observation of domain boundaries in tetragonal zirconia . . . . . 595 B
Mohan, M., and Singh, A. K.: Temperature dependence under pressure of the kinetics of crystallization of bulk amorphous selenium . . . . . 705 B

PAGE

Molinas, B. J., *see* Roatta, A.
Mommaert, C., *see* De Meulenaere, P.
Monnier, R., *see* Crampin, S.
Montandon, C., *see* Treilleux, M.
Morris, D. G., *see* Veyssière, P.
Mort, J., Machonkin, M., Chen, I., and Ziolo, R.: Charge-transfer processes in Buckminsterfullerene films . . . . . 77 L
Mott, P. H., Argon, A. S., and Suter, U. W.: Atomistic modelling of plastic deformation of glassy polymers . . . . . 931 A
Mukherjee, S., Maiti, A., Ghosh, U. S., and Basu, C.: Ultrasonic investigations of V_2O_5–GeO_2 glass . . . . . 823 B
Murayama, Y., Hanada, S., Obara, K., and Hiraga, K.: Dissociated dislocations in deformed Nb_3Al produced from alloy powder . . . . . 251 A
Murch, G. E., *see* Qin, Z.
Muto, S., Merk, N., Schryvers, D., and Tanner, L. E.: Displacive–replacive phase transformation in a $Ni_{62\cdot5}Al_{37\cdot5}\beta_2$-phase studied by high-resolution electron microscopy and microdiffraction . . . . . 673 B
Muto, S., Van Tendeloo, G., and Amelinckx, S.: High-resolution electron microscopy of structural defects in crystalline C_{60} and C_{70} . . . . . 443 B

Nagahama, H., Ohtera, K., Higashi, K., Inoue, A., and Masumoto, T.: Mechanical properties of rapidly solidified aluminium alloys extruded from amorphous or nanocrystalline powders . . . . . 225 L
Nagata, S., *see* Nakajima, H.
Naito, S., *see* Siedersleben, M. E.
Nakajima, H., Nagata, S., Matsui, H., and Yamaguchi, S.: Diffusion of oxygen in vanadium and its alloys . . . . . 557 A
Nandedkar, A. S., Srinivasan, G. R., Estabil, J. J., and Domenicucci, A.: Atomistic simulation of void nucleation in aluminium lines . . . . . 391 A
Narlikar, A. V., *see* Dutta, P. K.
Nebel, C. E., and Street, R. A.: Space-charge-limited currents at low temperatures in hydrogenated amorphous silicon . . . . . 721 B
Nebel, C. E., and Street, R. A.: Transient hole currents in hydrogenated amorphous silicon at low temperatures and high fields . . . . . 407 B
Nebti, S., *see* Hamana, D.
Nemoto, M., *see* Horita, Z.
Nemoto, M., *see* Tian, W. H.
Ngan, A. H. W., Jones, I. P., and Smallman, R. E.: On the contrast of antiphase-boundary tubes in the transmission electron microscope . . . . . 417 B
Nihoul, S., *see* Giorgio, S.
Nikl, M., Hlinka, J., Mihokova, E., Polak, K., Fabeni, P., and Pazzi, G. P.: Decay kinetics of CsI:Tl luminescence excited in the A absorption band . . . . 627 B
Nikolaichik, V. I., and Despotuli, A. L.: Electron beam writing in thin films of highly conducting solid electrolytes $RbAg_4I_5$ and $CsAg_4Br_{3-x}I_{2+x}$ . . . . . 19 L
Nimitz, G., *see* Aronzon, B. A.
Ning, X. G., *see* He, L. L.
Nishida, T., *see* Pezzotti, G.
Nissen, H.-U., *see* Arita, M.
Nix, W. D., *see* Glatzel, U.
Nix, W. D., *see* Vlassak, J. J.
Noor Mohammad, S.: New generalization of dielectric screening in electronic devices with heavily doped semiconductor region(s). I. Treatment for the quasi-neutral bulk region . . . . . 601 B

Obara, K., *see* Murayama, Y.
Oger, L., *see* Lemaître, J.
Ohtera, K., *see* Nagahama, H.
Otsuka, N., *see* Melloch, M. R.

PAGE

Ouali, N., Mangion, M. B. M., and Perez, J.: Experimental and theoretical analysis of both the small- and the large-stress mechanical response of poly(methyl methacrylate) . . . . . 827 A
Ouyang, J. T., *see* Duan, X. F.

Papastaïkoudis, C., *see* Travlos, A.
Parisini, A., and Bourret, A.: Diamond hexagonal silicon phase and {113} defects. Energy calculations and new defect models . . . . . 605 A
Parthasarathy, T. A., Rao, S. I., and Dimiduk, D. M.: Molecular statics simulations of core structures and motion of dislocations in NiAl . . . . . 643 A
Pashley, D. W.: The relief of pseudomorphic strain in epilayers of f.c.c. structures grown in (110) orientation . . . . . 1333 A
Paterson, J. H., *see* Walmsley, J. C.
Paufler, P., *see* Wagner, G.
Pawley, G. S., *see* Groma, I.
Pazzi, G. P., *see* Nikl, M.
Perez, J., *see* Ouali, N.
Perovic, D. D., Howie, A., and Rossouw, C. J.: On the image contrast from dislocations in high-angle annular dark-field scanning transmission electron microscopy . 261 L
Perovic, D. D., *see* Castell, M. R.
Pethrick, R. A., *see* Gilmour, S.
Petrenko, V. F., and Schulson, E. M.: Action of electric fields on the plastic deformation of pure and doped ice single crystals . . . . . 173 A
Petrenko, V. F., *see* Fifolt, D. A.
Petrenko, V. F.: On the nature of electrical polarization of materials caused by cracks. Application to ice electromagnetic emission . . . . . 301 B
Pezzotti, G., Tanaka, I., and Nishida, T.: Intrinsic fracture energy of polycrystalline silicon nitride . . . . . 95 L
Phan, I., *see* Wardle, S.
Pina, P., *see* Fortes, M. A.
Pipitone, G., *see* Caponetti, E.
Pirouz, P., *see* Geipel, T.
Pirouz, P., *see* Holmes, D.
Pirri, C. F., *see* Demichelis, F.
Polak, K., *see* Nikl, M.
Polonsky, I. A., *see* Keer, L. M.
Pongratz, P., *see* Wagner, G.
Popov, A. Yu., *see* Vendik, O. G.
Porcher, P., *see* Limburgh, H.-J.
Priester, L., *see* Khalfallah, O.
Pruitt, L., and Suresh, S.: Cyclic stress fields for fatigue cracks in amorphous solids. Experimental measurements and their implications . . . . . 1219 A
Pugh, D., *see* Gilmour, S.

Qin, Z., and Murch, G. E.: Correlation effects in dislocation pipe diffusion. I. Theory 369 A
Qin, Z., and Murch, G. E.: Correlation effects in dislocation pipe diffusion. II. A Monte Carlo study . . . . . 381 A
Qin, Z., and Murch, G. E.: Decay of the tracer correlation process in solid-state diffusion . . . . . 777 A
Qin, Z., and Murch, G. E.: Relations between atomic transport coefficients in a binary system . . . . . 757 A

Rabier, J., Tall, P. D., and Denanot, M. F.: On the dissociation of dislocations in $YBa_2Cu_3O_{7-\delta}$ . . . . . 1021 A
Ramos, M. M. D., *see* Stoneham, A. M.
Randle, V.: Microtexture investigation of the relationship between strain and anomalous grain growth . . . . . 1301 A
Ranganathan, S., *see* Mandal, R. K.

PAGE

Rao, K. J., Estournes, C., Levasseur, A., Shastry, M. C. R., and Menetrier, M.: Activation barriers for d.c. conductivity in ionic glasses: classical calculations using the small-cluster approximation . . . . . 389 B
Rao, S. I., *see* Parthasarathy, T. A.
Redjaïmia, A., Ruterana, P., Metauer, G., and Gantois, M.: Identification and characterization of a novel intermetallic compound in a Fe–22 wt% Cr–5 wt% Ni–3 wt% Mo–0·03 wt%C . . . . . 1277 A
Redjaïmia, A., *see* Donnadieu, P.
Rice-Evans, P., *see* Smith, C.
Rickman, J. M., and Srolovitz, D. J.: A modified-local-harmonic model for solids . 1081 A
Riontino, G., *see* Abis, S.
Ritchie, D. A., *see* Castell, M. R.
Rivier, N., *see* Lemaître, J.
Rizzoli, R., *see* Desalvo, A.
Roatta, A., Molinas, B. J., and Tomé, C. N.: A method to deconvolute amplitude-dependent internal-friction data: theory and experiment . . . . . 87 A
Roca i Cabarrocas, P., *see* Meaudres, R.
Rokofyllou, E., *see* Travlos, A.
Romeu, D.: Quasicrystals as generalized crystals: the decagonal phase . . . . 77 B
Rosato, V., *see* Cleri, F.
Rossouw, C. J., and Hampikian, J. M.: Electron diffraction measurements on chromium oxide. . . . . 849 A
Rossouw, C. J., and Miller, P. R.: Voltage and temperature dependence of silicon high-order Laue zone line positions . . . . . 733 B
Rossouw, C. J., *see* Perovic, D. D.
Rousset, A., *see* Mathieu, F.
Russo, G., *see* Ferrari, L.
Ruterana, P., *see* Redjaïmia, A.
Ruth, M., *see* Desalvo, A.

Sabolek, S., Babić, E., and Marohnić, Ž.: Core-current-induced zero coercive field in an amorphous $Co_{70\cdot3}Fe_{4\cdot7}Si_{15}B_{10}$ alloy. . . . . 399 L
Saka, H., *see* Matsumoto, A.
Sakuma, T., *see* Miyazawa, K.
Samanta, S. B., *see* Dutta, P. K.
Sano, T., *see* Horita, Z.
Sano, T., *see* Tian, W. H.
Santos Aires, F., *see* Treilleux, M.
Sato, A., *see* Jumonji, K.
Schauer, W., *see* Arita, M.
Schoeck, G.: The formation of Paidar–Pope–Vitek locks of $L1_2$ ordered compounds 193 L
Schryvers, D., *see* Muto, S.
Schulson, E. M., and Kuehn, G. A.: Ductile ice. . . . . 151 L
Schulson, E. M., *see* Fang, J.
Schulson, E. M., *see* Fifolt, D. A.
Schulson, E. M., *see* Petrenko, V. F.
Scowen, R., *see* Walmsley, J. C.
Semenov, A. A., *see* Woo, C. H.
Severne, G., *see* De Meulenaere, P.
Shaoqing, W., *see* Shixue, Z.
Shastry, M. C. R., *see* Rao, K. J.
Shaw, N., *see* Smith, C.
Shen, Y.-L.: An analysis of shear band formation in {100}⟨011⟩ textured f.c.c. metals 73 L
Sheng, C., *see* Duan, X. F.
Sherwood, J. N., *see* Gilmour, S.
Shikhsaidov, M. Sh., *see* Kisel, V. P.
Shinohara, T., *see* Jumonji, K.
Shintani, K.: Equilibrium shapes of dislocation shear loops in lithium niobate and lithium tantalate under an external stress in the line tension approximation 361 A

PAGE

Shipway, P. H., and Hutchings, I. M.: Fracture of brittle spheres under compression and impact loading. I. Elastic stress distributions . . . . . 1389 A
Shipway, P. H., and Hutchings, I. M.: Fracture of brittle spheres under compression and impact loading. II. Results for lead-glass and sapphire spheres . . . . 1405 A
Shiraki, Y., *see* Yamashita, Y.
Shiue, S.-T., and Lee, S.: Effect of grain boundary ledges on mode III fracture . 1433 A
Shixue, Z., Yuanming, W., and Shaoqing, W.: A dynamic criterion for simulating high-resolution electron microscopy images in the real-space multislice method . 293 L
Shoemaker, C. B.: On the relationship between μ-$MnAl_{412}$ and the decagonal Mn–Al phase . . . . . 869 B
Siedersleben, M. E., Naito, S., and Taylor, G.: Elastic constants of b.c.c. Li–Mg alloys 3 B
Singh, A. K., *see* Mohan, M.
Singh, A. K.: Analysis of C_{60} fullerite compression under non-hydrostatic pressure . 379 L
Singh, B. N., *see* Heinisch, H. L.
Skalicky, P., *see* Wagner, G.
Skordeva, E., *see* Vateva, E.
Smallman, R. E., *see* Ngan, A. H. W.
Šmíd, V., *see* Zeman, J.
Smith, C., Rice-Evans, P., Shaw, N., and Smith, D. L.: Vacancy defects in cadmium mercury telluride investigated with slow positrons . . . . . 213 L
Smith, D. L., *see* Smith, C.
Smith, J. L., *see* Demczyk, B. G.
Smith, P. A , *see* Fan, Z.
So, C. B., *see* Tomé, C. N.
Sorba, L., *see* Angelo, J. E.
Spence, J. C. H., *see* Horita, Z.
Srinivasan, G. R., *see* Nandedkar, A. S.
Srivastava, O. N., *see* Bartwal, K. S.
Srolovitz, D. J., *see* Rickman, J. M.
Staiger, W., Yu, D. P., and Kléman, M.: Transmission electron microscopy study of small-angle grain boundaries, dislocations and modulated phases in Al–Li–Cu quasicrystals . . . . . 991 A
Starick, D., *see* Limburgh, H.-J.
Stashans, A., *see* Jacobs, P. W. M.
Steeds, J. W., *see* Cherns, D.
Steeds, J. W., *see* Chou, C. T.
Stewart, A. M.: Estimation of the range of atomic forces in crystals from phonon frequency spectra . . . . . 363 B
Stobbs, W. M., *see* Angelo, J. E.
Stobbs, W. M., *see* Baxter, C. S.
Stoneham, A. M., Ramos, M. M. D., and Sutton, A. P.: Feature article: How do they stick together? The statics and dynamics of interfaces . . . . . 797 A
Stoneham, A. M., *see* Duffy, D. M.
Street, R. A., *see* Nebel, C. E.
Strutt, A. J., and Williams, D. B.: Chemical analysis of Cu–Be–Co alloys using quantitative parallel electron-energy-loss spectroscopy . . . . . 1007 A
Su, W. H., *see* Yu, R. C.
Suenaga, M., *see* Zhu, Y.
Sun, W., and Hiraga, K.: Interface structure between decagonal and icosahedral quasicrystals in Al–Pd–Mn alloy . . . . . 159 L
Sun, W., *see* Hiraga, K.
Sun, Y. Q., *see* Couret, A.
Suresh, S., *see* Pruitt, L.
Suter, U. W., *see* Mott, P. H.
Sutton, A. P., *see* Stoneham, A. M.
Suzuki, K., *see* Miyazawa, K.
Suzuki, K., *see* Yamashita, Y.
Suzuki, T., and Koizumi, H.: Inertial motion and multi-kink pair formation of dislocations on the Peierls potential . . . . . 1153 A

PAGE

Tafto, J., *see* Zhu, Y.
Takasugi, T., and Yoshida, M.: Dislocation structures for octahedral slip in $Ni_3(Si,Ti)$ single crystals at elevated temperatures . . . . . 447 A
Tale, I. A., *see* Jacobs, P. W. M.
Tall, P. D., *see* Rabier, J.
Tanaka, I., *see* Pezzotti, G.
Tanner, L. E., *see* Muto, S.
Taylor, G., *see* Siedersleben, M. E.
Tessler, L. R.: Aluminium in hydrogenated amorphous germanium . . . . . 273 L
Theye, M. L., *see* Meaudres, R.
Thompson, A. W., *see* Dimiduk, D. M.
Tian, W. H., Horita, Z., Sano, T., and Nemoto, M.: An application of the differential X-ray absorption method to thickness measurement in precipitate-containing $Ni_3(Al, Ti)$ and TiAl compounds . . . . . 811 B
Tietz, L. A., and Carter, C. B.: Structure of the Fe_2O_3–Al_2O_3 (0001) interface . . 699 A
Tietz, L. A., and Carter, C. B.: Structure of the Fe_2O_3–Al_2O_3 ($1\bar{1}02$) interface . . 729 A
Toda, Y., *see* Inui, H.
Tomé, C. N., *see* Lebensohn, R. A.
Tomé, C. N., *see* Roatta, A.
Tomé, C. N., So, C. B., and Woo, C. H.: Self-consistent calculation of steady-state creep and growth in textured zirconium . . . . . 917 A
Traverse, A., *see* Travlos, A.
Travlos, A., Aloupogiannis, P., Rokofyllou, E., Papastaïkoudis, C., Traverse, A., and Weber, G.: Growth, characterization and electrical properties of gadolinium silicide thin layers . . . . . 485 B
Treilleux, M., Fuchs, G., Montandon, C., Santos Aires, F., Melinon, P., Cabaud, B., and Hoareau, A.: Atomic rearrangements of supported Bi particles observed by high-resolution electron microscopy . . . . . 1069 A
Tresso, E., *see* Demichelis, F.
Triolo, R., *see* Caponetti, E.
Troadec, J. P., *see* Lemaître, J.
Tsai, A. P., Tsurui, T., Memezawa, A., Aoki, K., Inoue, A., and Masumoto, T.: Formation of quasicrystals through peritectoid reactions from a non-equilibrium cubic phase prepared by mechanical alloying . . . . . 393 L
Tsakiropoulos, P., *see* Fan, Z.
Tsurui, T., *see* Tsai, A. P.

Udler, D., *see* Fradkov, V. E.
Umerski, A., and Jones, R.: The interaction of oxygen with dislocation cores in silicon 905 A
Urban, K., *see* Dai, M. X.
Urban, K., *see* Grushko, B.
Urban, K., *see* Wollgarten, M.
Usami, N., *see* Yamashita, Y.

Van Landuyt, J., *see* De Meulenaere, P.
Van Siclen, C. DeW., and Wright, R. N.: Enhanced diffusion of liquid-coated gas bubbles in solids . . . . . 1 A
Van Tendeloo, G., *see* Balzuweit, K.
Van Tendeloo, G., *see* De Meulenaere, P.
Van Tendeloo, G., *see* Muto, S.
Van Tendeloo, G., *see* Woods, G. S.
Vateva, E., Skordeva, E., and Arsova, D.: Average coordination number dependence of photostructural changes in amorphous Ge–As–S films . . . . . 225 B
Vendik, O. G., and Popov, A. Yu.: Can the bipolaron model be used for a description of microwave and infrared properties of a high-temperature superconductor? . 833 B
Veyssière, P., and Morris, D. G.: Comment on 'Transmission electron microscopy of dislocation structures in iron-doped Al_3Ti with the $L1_2$ structure' . . . 491 A
Vignoli, S., *see* Meaudres, R.
Vlassak, J. J., and Nix, W. D.: Indentation modulus of elastically anisotropic half spaces 1045 A

PAGE

Vollmar, H.-P., and Bindemann, R.: Enhanced non-radiative recombination in hydrogenated amorphous silicon at low carrier densities and low temperatures 231 L
Von Niessen, W., *see* Koslowski, Th.
Vvedensky, D. D., *see* Crampin, S.

Wager, J. F.: Thermodynamics and kinetics of vacancy self-compensation in wide-bandgap semiconductors . . . . . 897 A
Wagner, G., Paufler, P., Pongratz, P., and Skalicky, P.: The 30° dislocations in plastically deformed gallium phosphide . . . . . 143 A
Walmsley, J. C., Ward, A., Scowen, R., McGibbon, A. J., and Paterson, J. H.: Atomic number contrast imaging and microanalysis of copper precipitates in irradiated ferritic pressure vessel steels . . . . . 131 L
Wang, J. Y., *see* Yang, Y. S.
Wang, R., *see* Yan, Y.
Wang, Y. T., *see* Duan, X. F.
Wang, Z. L., *see* Zhu, Y.
Ward, A., *see* Walmsley, J. C.
Wardle, S., Phan, I., and Hug, G.: Analysis of twin intersections in TiAl . . . 497 A
Warren, A. C., *see* Melloch, M. R.
Waseda, A., *see* Araki, K.
Weaire, D., *see* Fradkov, V. E.
Weber, G., *see* Travlos, A.
Weber, H. W., *see* Frischherz, M. C.
Weiser, K., *see* Haridim, M.
Welch, D. O., *see* Zhu, Y.
Wierzbanowski, K., *see* Baczmanski, A.
Williams, D. B., *see* Strutt, A. J.
Williams, D. B., *see* Zhang, Z.
Williams, J. C., *see* Dimiduk, D. M.
Wilson, A. R.: The accuracy, precision and stability of a (scanning) transmission electron microscope with a parallel electron-energy-loss spectrometer assessed by measurements of the plasmon energy of aluminium . . . . . 181 B
Wittmann, R., *see* Grushko, B.
Wolfenstine, J., *see* González-Doncel, G.
Wollgarten, M., Lakner, H., and Urban, K.: Planar decagonal-phase precipitates in icosahedral Al–Pd–Mn quasicrystals . . . . . 9 L
Woo, C. H., and Semenov, A. A.: Dislocation climb and interstitial loop growth under cascade damage irradiation . . . . . 1247 A
Woo, C. H., *see* Tomé, C. N.
Woodall, J. M., *see* Melloch, M. R.
Woods, G. S., Kiflawi, I., Kanda, H., and Evans, T.: The effect of isotropic changes on the {001} platelet infrared absorption in diamond . . . . . 651 B
Woods, G. S., Kiflawi, I., Luyten, W., and Van Tendeloo, G.: Infrared spectra of type IaB diamonds . . . . . 405 L
Wright, R. N., *see* Van Siclen, C. DeW.
Wu, J. Z., and Chu, W. K.: Anisotropy of the transport critical current in $YBa_2Cu_3O_{7-\delta}$ (110) films . . . . . 587 B
Wu, S. K., *see* Yang, Y. S.
Wulff, H., *see* Limburgh, H.-J.
Wunderlich, W., *see* Lendvai, J.

Xiao, S. Q., *see* Geipel, T.
Xu, D. P., *see* Yu, R. C.
Yamada, Y., *see* Kasukabe, Y.
Yamaguchi, M., *see* Inui, H.
Yamaguchi, S., *see* Nakajima, H.
Yamamoto, S., *see* Cao, B.
Yamashita, Y., Maeda, K., Fujita, K., Usami, N., Suzuki, K., Fukatsu, S., Mera, Y., and Shiraki, Y.: Dislocation glide motion in heteroepitaxial thin films of $Si_{1-x}Ge_x/Si(100)$. . . . . 165 L

PAGE

Yan, Y., and Wang, R.: High-temperature-deformation-introduced defects in an $Al_{70}Co_{15}Ni_{15}$ decagonal quasicrystal. . . . . 51 L
Yang, Y. S., Wu, S. K., and Wang, J. Y.: A study by high-resolution electron microscopy of an $\alpha_2+\gamma$ two-phase Ti–40 at.% Al alloy. . . . . 463 A
Ye, H. Q., *see* He, L. L.
Ye, Y. Y., *see* Fu, C. L.
Ye, Z.: New dephasing mechanism for infrared absorption of the adsorbate . . 239 L
Yongping, G., *see* Guanghua, C.
Yoo, M. H., *see* Fu, C. L.
Yoshida, M., *see* Takasugi, T.
Yoshizaki, R., *see* Zhu, Y.
Youssef, M. H., and Bordoni, P. G.: Influence of dislocations generated by temperature changes on the elastic behaviour of hexagonal polycrystals . . . . . 883 A
Yu, D. P., *see* Staiger, W.
Yu, R. C., Li, X. Z., Xu, D. P., Zhang, Z., Su, W. H., and Kuo, K. H.: New orthorhombic approximants of the $Al_{70}Co_{15}Ni_{10}Tb_5$ decagonal quasicrystal . . . . . 287 L
Yuan, J., *see* Browning, N. D.
Yuanming, W., *see* Shixue, Z.

Zanchetta, J. V., *see* Belougne, P.
Zeman, J., Šmíd, V., Krištofik J., Mareš, J. J., and Hubík, P.: Influence of hydrostatic pressure on DX-centre levels in $GaAs_{1-x}P_x$:S. . . . . 25 B
Zeman, J., Šmíd, V., Krištofik, J., and Mareš, J. J., and Hubík, P.: Analysis of experimental data on DX-centre levels in $GaAs_{1-x}P_x$:S . . . . . 49 B
Zhang, J. P., *see* Frischherz, M. C.
Zhang, S., and Brodie, D, E.: Photoinduced photocurrent decay in non-hydrogenated amorphous silicon nitride prepared by ion-beam-assisted reactive deposition . 801 B
Zhang, Y. G., Chaturvedi, M. C., and Chen, C. Q.: Transmission electron microscopy observation of ⟨101] superdislocation decomposition in Ti–Al deformed at −196°C . . . . . 979 A
Zhang, Z., Feng, Y. C., Williams, D. B., and Kuo, K. H.: Crystalline surface layers on quasicrystals . . . . . 237 B
Zhang, Z., *see* Yu, R. C.
Zhizhong, S., *see* Guanghua, C.
Zhu, Y., Budhani, R. C., Cai, Z. X., Welch, D. O., Suenaga, M., Yoshizaki, R., and Ikeda, H.: Structure of Au^{24+}-ion-irradiation-induced defects in high-T_c superconductors. . . . . 125 L
Zhu, Y., Suenaga, M., and Tafto, J.: Interpretation of tweed contrast from the $YBa_2Cu_3O_{7-\delta}$ system . . . . . 573 A
Zhu, Y., Suenaga, M., and Tafto, J.: The interface of orthogonally oriented twins in $YBa_2Cu_3O_{7-\delta}$ . . . . . 1055 A
Zhu, Y., Wang, Z. L., and Suenaga, M.: Grain-boundary studies by the coincident-site lattice model and electron-energy-loss spectroscopy of the oxygen K edge in $YBa_2Cu_3O_{7-\delta}$ . . . . . 11 A
Zignani, F., *see* Desalvo, A.
Ziolo, R., *see* Mort, J.
Zong, X.-F., *see* González, R.
Zulfiqar, M. N., *see* Butt, M. Z.